

AMENDMENTS TO THE SPECIFICATION

Please amend the paragraph beginning on page 1, line 6 as follows:

The present invention relates to a list display device, and more particularly, to ~~the~~ a list display device suitable for displaying an operation list or the like for equipment such as a navigation system, audio equipment, an air conditioner, or the like, which is mounted on a motor vehicle such as an automobile and so forth.

Please amend the paragraph beginning on page 1, line 27 as follows:

Meanwhile, in addition to the above prior art, another conventional art is also known as disclosed, for example, in Japanese Patent Laid-Open No. 2002-111839 that displays item names of a list by listing in a vertical or a horizontal direction on a display screen in which such a technique is generally employed that provides indicators on ~~an upside~~ a top side and ~~a downside~~ a bottom side, or a right side and a left side of the list when scrolling the list in the vertical or the horizontal direction.

Please amend the paragraph beginning on page 2, line 1 as follows:

However, in the former case of the above-mentioned prior-~~arts~~ art, all of the items are displayed on the display screen, so that when each item has a character or the like assigned, there are many characters to be displayed to thereby cause the user difficulty in viewing item names in the case of a small display screen. In addition, in response to a rotation input operation via a rotation operation element, every item is moved circularly to thereby require an overall update of

the display screen at the time of displaying, causing heavy loading on a processing unit of the displaying means. In particular, an entire update of the display screen is not desirable when driving an automobile due to troublesome display.

Please amend the paragraph beginning on page 2, line 12 as follows:

Also, in the latter case of the above-mentioned prior-arts art, many characters are listed on the display screen, whereby the user ~~loses~~ loses a point of regard, thus not being ~~not~~ suitable for use in the automobile or the like. Specifically, it is impossible to read characters in a moment while driving, so that when there are lots of items all over the display screen, eyeshot runs ~~through~~ all over the display screen. As a result, the driver unintentionally reads through characters all over the display screen, so that safety may be impaired while driving the automobile. Besides, due to a small indicator area provided therein, there is another problem of poor visibility.

Please amend the paragraph on page 2, line 30 to page 3, line 13 as follows:

The list display device of the present invention ~~includes~~ includes a display means for displaying a plurality of item frames in sequence on a display screen, each of the item frames indicating an item name of ~~the~~ a list; and a display controlling means for moving the plurality of item frames displayed on the display means in response to an input operation into an operation element to thereby display any intended item frame, wherein the display means arranges a current item frame, which is selectively intended at present, in a central zone in the display screen,

wherein precedent item frames and subsequent item frames of the current item frame are arranged on a first side and a second side that are separated by the central zone and overlapped with each other in a staircase pattern viewing from a cross direction of the display screen with the item frames immediately before and after the current item frame being in the foreground foregrounds, and wherein the display controlling means is designed to move the current item frame together with the precedent and subsequent item frames on the first and the second side being overlapped with each other in the staircase pattern in response to an input operation into the operation element.

Please amend the paragraph beginning on page 3, line 15 as follows:

As a result, in the list display device according to the present invention, what is shown on the display screen are only three item names, they are those indicated in the current item frame and the item frames immediately before and after the same. Consequently, the item names to be displayed are minimized so that the driver can select a desired item without gazing at many characters while driving and so forth.

Please amend the paragraph beginning on page 3, line 22 as follows:

As for the other item frames, further, only parts of their frames are displayed. With the indicated parts of the item frames, the user is ~~enabled~~ able to easily understand the position of the current item frame and the total volume of the list. In addition, the global image of the list and the current item frame can be displayed in a larger size on the display screen, making it easy to

visually recognize them even in the display means using a small liquid crystal display screen or the like. In the case where adapted to the automobile, even when driving the automobile, the driver can ensure ~~safety~~ a safe driving operation without being distracted by selecting operation of the list. Therefore, with its excellent visibility, the present invention is suitable for use ~~as the~~ as the list display device for maneuvering on-vehicle equipment while driving.

Please amend the paragraph beginning on page 4, line 7 as follows:

When rotating the rotation operation element so as to move the item frames, what is required to be done on the display screen is only to move the current item frame and the item frames immediately before and after the same on the circular track. Therefore, operational load on the display control device at the time of regenerating the display screen is reduced as compared to that of the prior art in which every item ~~are~~ is displayed circularly and moved in response to the rotation input operation, whereby reloading speed for regenerating the screen can be made faster.

Please amend the paragraph beginning on page 5, line 10 as follows:

As shown in FIG. 1, a liquid crystal display 4 is provided in a cluster lid of an instrument panel of an automobile, the liquid crystal display 4 being a device for displaying, on liquid crystal display screen 1 thereof, information about on-vehicle equipment such as an operating state of audio equipment, navigation information, an operating state of an air conditioner and the like, and an operation screen panel and the like for ~~these~~ this equipment. In FIG. 1, a list for selecting

a radio station is shown. The liquid crystal display 4 functions as a display means of the present invention.

Please amend the paragraph beginning on page 5, line 19 as follows:

On the lower part of the liquid crystal display screen 1, there is displayed a switch image 2 representing a jog encoder switch 5. The jog encoder switch 5 is provided at a position that is easy to operate for a passenger on a front seat, for example, at a console 6 or the like. Here, the jog encoder switch 5 functions as a rotation operation element of the present invention. The jog encoder switch 5 is connected to a controller 7 which controls an image on the liquid crystal display 4 in response to an input outputted from the jog encoder switch 5. The controller 7 functions as a display controlling means of the present invention. The jog encoder switch 5 functions as a rotation operation element and an operation element of the present invention.

Please amend the paragraph beginning on page 6, line 5 as follows:

Additionally, on the left side and right side of the item frame 3c being the current item frame, an item frame 3b (here, a second radio station being currently selected) being the item frame immediately before the item frame 3c and an item frame 3d (here, a forth radio station being currently selected) being the item frame immediately after the item frame 3c are arranged respectively. These three item frames 3b, 3c, and 3d are arranged on a minor arc set on the display screen. In concrete terms, the item frame 3c being the current item frame is arranged at a horizontally center position of the minor arc, and remaining two item frames are arranged at a

left side and a right side of the minor arc respectively in a symmetrical manner.

Please amend the paragraph beginning on page 6, line 16 as follows:

Further, behind the item frame 3b and the item frame 3d on the screen, an item frame 3a, and ~~an~~ item frames 3e and 3f, are arranged respectively in a staircase pattern by overlapping each other, while showing parts thereof on the display screen. Specifically, at the center of the display screen, only the item frame 3c as the current item frame being selectively intended at present is displayed, and on the left side and right side thereof, the item frames 3b and 3d, namely the item frames immediately before and after the item frame 3c are displayed in the foregrounds foreground with the rest of the item frames partly showing as a piled list. That is, on the side of the item frame 3b, the item frames having even more precedent radio stations are arranged, and on the side of the item frame 3d, the item frames having even more subsequent radio stations are arranged.

Please amend the paragraph beginning on page 7, line 3 as follows:

In FIG. 1, when the jog encoder switch 5 is rotated counterclockwise to the left, the item frame 3d and the item frame 3c move counterclockwise to the left on a track of the minor arc to thereby come to the positions of the current item frame 3c and the item frame in the foreground of the item frames being the piled list on the left side respectively, as shown in FIG. 2[[.]], while ~~While~~ the item frame 3b is added to the piled list by showing the part thereof. Incidentally, along with the move of the item frame 3d, on top of the piled list on the right side, the item name

indicated in the item frame 3e (fifth radio station) is shown.

Please amend the paragraph beginning on page 7, line 13 as follows:

Accordingly, in FIG. 2, the item frame 3d takes over the current item frame 3c so that the item name indicated in the item frame 3d (fourth radio station) is selected to tune in ~~on~~to the radio station.

Please amend the paragraph beginning on page 7, line 23 as follows:

In FIG. 1, what is shown on the liquid crystal display screen 1 are only three item names, they are those indicated in the current item frame (3) and the item frames (3b, 3c) immediately before and after the same. Consequently, the item names to be displayed are minimized so that the driver can select a desired item without gazing at many characters while driving and so forth.

Please amend the paragraph on page 7, line 29 to page 8, line 9 as follows:

As for the item frames 3a, 3e, and 3f which are item frames other than the current item frame 3c and the item frames 3b and 3d being the item frames immediately before and after the current item frame 3c, only parts of their frames are displayed. With the indicated parts of the item frames, the user is ~~enabled~~able to easily understand the position of the current item frame 3c and the total volume of the list. In addition, the global image of the list and the current item frame 3c can be displayed in a larger size on the display screen, making it easy to visually recognize them even in the display means using a small liquid crystal display screen 1 or the like.

In the case where adapted to the automobile, even when driving the automobile, the driver can ensure ~~safety~~ a safe driving operation without being distracted by selecting operation of the list. Therefore, with its excellent visibility, the present invention is suitable for use as the list display device for maneuvering on-vehicle equipment while driving.

Please amend the paragraph beginning on page 8, line 11 as follows:

Moreover, when rotating the jog encoder switch 5 so as to move the item frame 3, what is required to completely regenerate the display screen are only to replace the displayed contents of the current item frame 3c, and the item frame 3b and the item frame 3d being the item frames immediately before and after the current item frame 3c, and to increase or decrease the steps of the item frames of the piled list on the right and left sides which are overlapping each other in the staircase pattern. Therefore, as compared to the prior art, it is ~~enabled~~ possible to lower an operational load on a display controlling device and to quicken the time respectively for regenerating the display screen.